PREMOLDING ELECTRICAL RECEPTACLES

This invention relates to receptacles for electrical plugs, and more particularly to premolds for use in the manufacture thereof.

Background

Prior art premolds for plug receptacles have incorporated bent, slotted "blades", as does the present invention, but have required two rigid polyvinyl plastic elements, ultrasonically welded together, a requirement greatly more labor intensive than the present invention.

Summary

It has been discovered that incorporating a "gate" in the blades, on one half and working with the other as its seat, a receptacle premold may be provided with great efficiency and greatly diminished labor intensity.

In another aspect, it has been discovered that a ground receptacle may be gated by combining a longitudinal outwardly extending rib with an opposed longitudinal split to work in combination with a mold load pin.

Drawings

Turning now to the presently preferred embodiment of the invention, there is shown in:

Fig. 1, an exploded isometric view thereof;

Fig. 2, a sectional view at 2-2 of one element of Fig. 1;

Fig. 3, a sectional view at 3-3 of another portion of Fig. 1; and in

Fig. 4, a sectional view at 4-4 of the plastic housing of said embodiment.

Description

Shown in Fig. 1 is a rigid plastic housing 10, molded conventionally of a polycarbonate composition and including an opening 12 for a ground pin contact 14 and two openings 16 for identical contact pins 18.

Each ground pin 14 includes a cup 20 for crimping around a wire bundle, an outwardly directed cylindrical indentation 22 (which facilitates use alternatively with a round ground pin), a peripheral circumferential outwardly extending rib 24 and is formed of flat sheet stock formed into abutting unsealed relation at joint 28. Neck 30 joins cup 20 to the rest of the contact. Flexible inclined plane stop 32 prevents a pin from backward movement.

Each contact pin 18 includes a wire crimp cup and a blade portion 34 bent at one end 36 to provide two generally parallel sheets intermediately correspondingly slotted (at 37) to accept one blade of the pair carried by a male electric plug. Each pin 18 also carries an inclined plane stop 40 to engage abutment 42 to prevent backward movement of the pin.

A narrower tongue 43 at the end of one of said sheets engages notch 44 of "door" 46 at the corresponding end of the other of those sheets to prevent flow of plastic in overmolding. Resilience of this blade and of the housing 10 (despite its relative rigidity in cooperating with pin stops) may provide a spring action useful in biasing the two portions of the contact pins toward each other.

In overmolding, conventionally, mold load pins are used conventionally to close housing holes 50, 52, and 54, except that the

load pin closing hole 54 in the present invention extends also into ground pin 14 to expand its circumference through cooperation with rib 24 and slot 28. The aftermold die surrounds the entire premold assembly shown in Fig. 1.

This invention also facilitates the mounting of a neon light bulb in a premold itself: all that need be done is to interpose its two wires between two male blade receptacle portions 34 and the adjacent housing portions.